

**Draft Outline for Strategic Science Plan
January 9, 2009**

I. INTRODUCTION (Lead Tim, 2nd Frank)

I.A. Context and Recent History

- I.A.1. The Science Panel's Role in the Partnership
- I.A.2. The Role of Science in Meeting Partnership Goals
- I.A.3. The application and use of scientific knowledge

I.B. Overall Science Plan Goals

- I.B.1. Scientific Capabilities applied to Partnership Goals
- I.B.2. Restoration Goals
- I.B.3. Adaptive Management
- I.B.4. Relationship between SP, LC, ECB, and broader scientific community

I.C. Responsibilities and Role of the Science Plan

I.D. (Lead: John, 2nd Trina and Jan; Staff: Mary and J. Knauer)

- II.D.1. Physical Characteristics of the Puget Sound
- II.D.2. Salt Water Characteristics
- II.D.3. Climate Effects
- II.D.4. Watershed – Landscapes
- II.D.5. Society and Economics
 - Technology and Infrastructure:
 - Transportation
 - Energy
 - Wastewater and Solid Waste
 - Drinking Water and Stormwater
 - Solutions

II. PRINCIPLES GUIDING THE USE OF SCIENCE IN PUGET SOUND RESTORATION (Lead Tim, 2nd Frank)

II.A. Adaptive Management

II.B. Assumptions, Drivers, and Principles

II.C. IEA

III. SCIENTIFIC INFORMATION REQUIRED TO ACHIEVE THE SIX PS PARTNERSHIP GOALS (6-9 pages, Lead: Jan; 2nd Joel)

III.A-F.1. Evaluation of the adequacy* of current scientific information and/or new research/analyses needed to achieve the goal

- a. Priority observations are required to describe the current situation
- b. Priority tools required to guide policy to meet this goal by 2020

III.A-F.2. Evaluation of the adequacy* of science-policy linkage information and strategies

- a. Priority tools required to assess the efficacy of these policies

III.A-F.3. Evaluation of where most effectiveness is to be gained (an indication of prioritization)

IV. FOUNDATIONS OF A RIGOROUS, DURABLE, AND RESPONSIVE PUGET SOUND SCIENCE PROGRAM (4-6 pgs - Lead: Joel, 2nd Trina, and John; staff Mary)

IV.A. Analysis:

IV.A.1. How is the Puget Sound ecosystem, including social and economic systems, structured and how does it work?

- a. Why this question is important to PSP goals:
- b. What is required:
- c. Current state of capacity to address this question:
- d. Roadblocks and opportunities:

IV.A.2. How has the Puget Sound ecosystem and social and economic systems changed and what will it look like in 2020?

- a. Why this question is important to PSP goals:
- b. What is required:
- c. Current state of capacity to address this question:
- d. Roadblocks and opportunities:

IV.A.3. What are the individual and cumulative effects of actions?

- a. Why this question is important to PSP goals:
- b. What is required:
- c. Current state of capacity to address this question:
- d. Roadblocks and opportunities:

IV.B. Required Capacity and Competency (1-2 pages, Lead: Joel, 2nd Trina; Staff: Scott and Ken).

IV.B.1. Integration, synthesis, and application of existing information

IV.B.2. Observations of current status and trends

IV.B.3. Exploration of ecosystem structure and function

IV.B.4. Exploration of social and economic systems

IV.B.5. Ecosystem-scale prediction

IV.B.6. Anticipatory science (getting ahead of the curve)

IV.B.7. Development of new tools including decision tools and integrated ecosystem/economic systems models

IV.B.8. A healthy scientific community in Puget Sound also requires investments in:

- a. Training/education
- b. Infrastructure
- c. Communication (conferences, publications, outreach)

IV.C. Peer Review. (1-2 pages: Lead: Guy, 2nd Usha; Staff: Mary)

IV.C.1. Peer review of scientific results from funded research

IV.C.2. Peer review of proposals for evaluation for funding

IV.C.3. Peer review of science messages from the PSP

IV.C.4. Larger-scale programmatic peer review

V. IMPLEMENTATION (12-16 + 1 pages – Lead John, 2nd Joel and Jan)
(NB. May be merged with section IV, if appropriate)

V.A. Integration of information and efforts. **(1 page, Lead: Joel, 2nd Jan; Staff: Scott and Mary)**

V.B. Monitoring.

V.C. Modeling

V.D. Research

V.E. Data Management Capabilities Needed to Support the Puget Sound Partnership Science Program

VI. SCIENCE EDUCATION AND OUTREACH PLAN (Lead Trina, 2nd Usha)

VI.A. Background

VI.B. Purpose

VI.C. Definitions

VI.D. Goals and Approach

VI.E. Conclusion